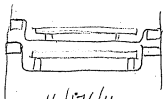
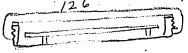
UNBOUND NOTES AND DRAWINGS
UNDATED, CA. 1887



2 | 176 -
88
88 -

16 | 176 | 11
16
3 | 159
33
126

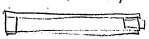
4' 44
4
176
17
159



3.

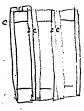
1 Cabin Cell .3 internal.
.6 External gave 125
available for 166 —

6 | 100
16 -
159



75
75
3 75
5 - 25
5 6,2 5.

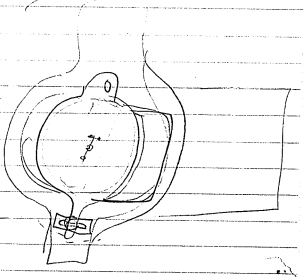
50 ft lbs on cabin
to internal



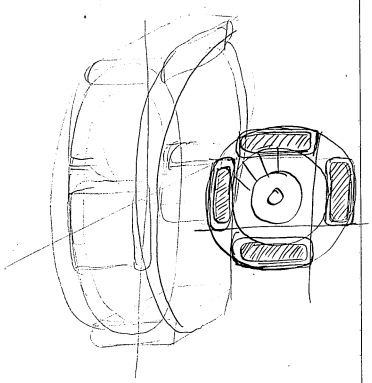
56
44
2 24
2 4
24 64

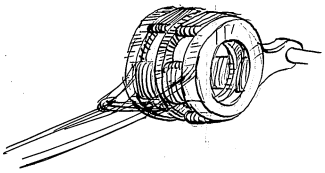
1887

Conical

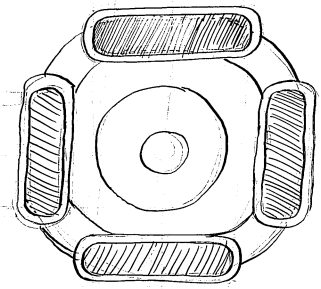


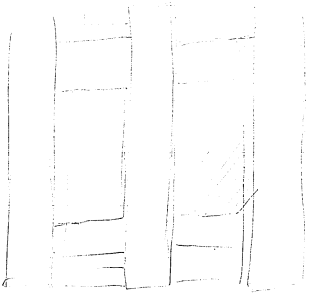
(1887)





(1887)





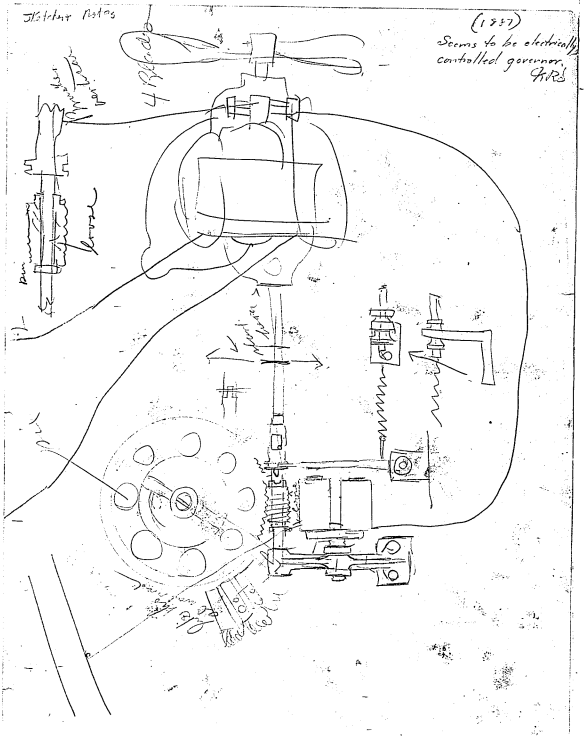
100.000 – [illegible]
20.000 – [illegible]

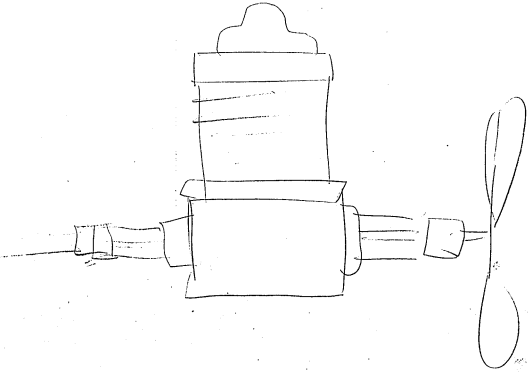
10 р. с. за 12.000
8.000
4.000 а
20 р. с.

20 р. с. за 24.000
т.
16.000
а 80 р. с.

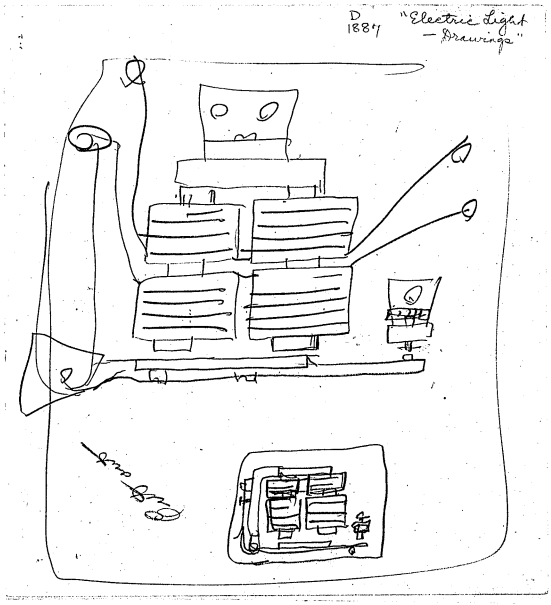
[illegible] р. с.

25 р. с. за 30.000
8.
22.000


Distributor Pistons
4 Rotors
(1957)
Seems to be electrically controlled governor.
GMRS



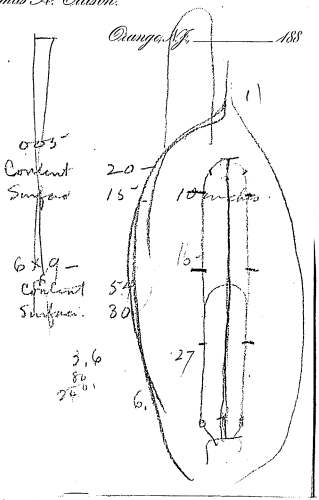
D
1887 "Electric Light
— Drawings"



D
1887

From the Laboratory
of
Thomas A. Edison.

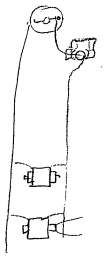
Orange, N.J. _____ 188

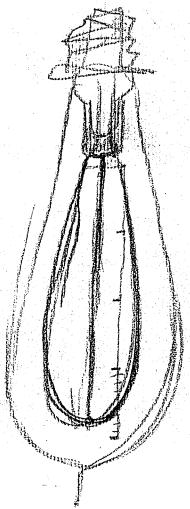


From the Laboratory
of
Thomas A. Edison.

Orange, N.J. _____ 188

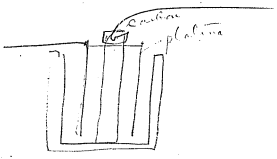
Storage Batteries Can be Charged from the primary Circuit, and used for light or preferably for operating motors using low Currents, Thus

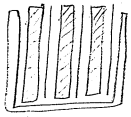




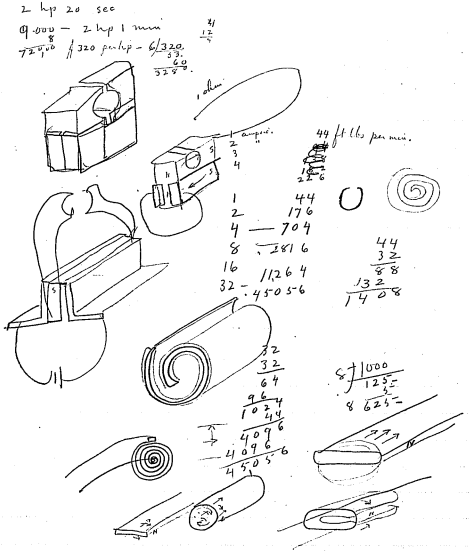
Russell Irwin

Pliers – Hallo C Cutg pliers – No 3. ½ doz
Nickel plated " 5" ½ "
Side Cutting pliers – 5½ – one doz –
Solid punches. ½ doz each 00 0 1 2 3 4 5 6 7 8. –
Hallo front Cutting Nippers No 2 ½ doz –
Washer Cutters, Smiths – Single one –
Revolving Spring punches Single one 6 holes.
Douglass Screwdrivers ¼ doz 3 inch ¼ 5 inch ¼ doz 7 inch
¼ 12 inch –
Hand Vises ½ doz 3 inch ½ doz 4 in ½ doz 5 in
Great cast steel,
Try squares

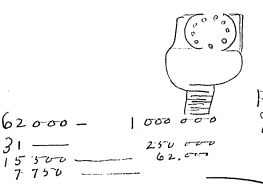




The method of generating Electric Currents consisting in the use of of a sulphate of ~~strontium~~ in Combination with phosphoric or Borac acid as set forth

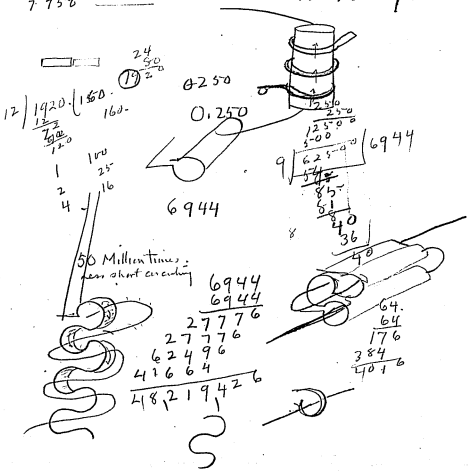

No 20 — 3000 lbs. in 5 sec 1/2 watts, 3 hp
2 hp 20 sec
1 amp.
2 "
3 "
4 "
44 ft lbs per min.
1 44
2 176
4 704
8 1816
16 1126 4
32 4505 6
44
32
88
132
1408
1000
125
8 625
32
32
64
96 4
102 44
4096
4096
4505 6

1.



620·00 — 1 000 000
31 —— 250 000
15 500 —— 62.000
7 750 ——

Proc Roy Soc
G W Semmell on
Mag um —
Vol 39 P 374



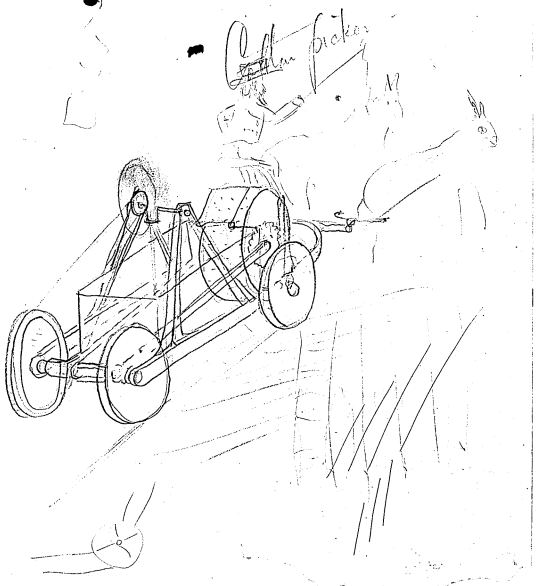
1877

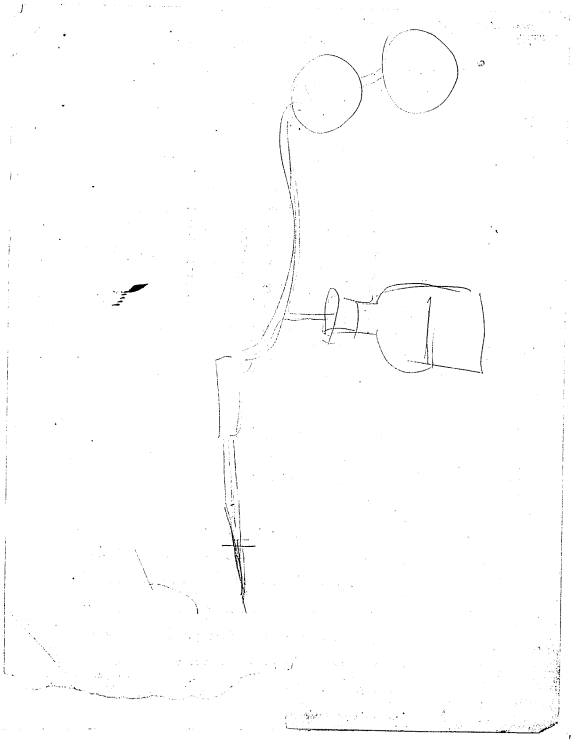
CABLE ADDRESS "EDISON, NEW YORK"

THOMAS A. EDISON,

40 & 42 WALL STREET.

NEW YORK, _____ 188





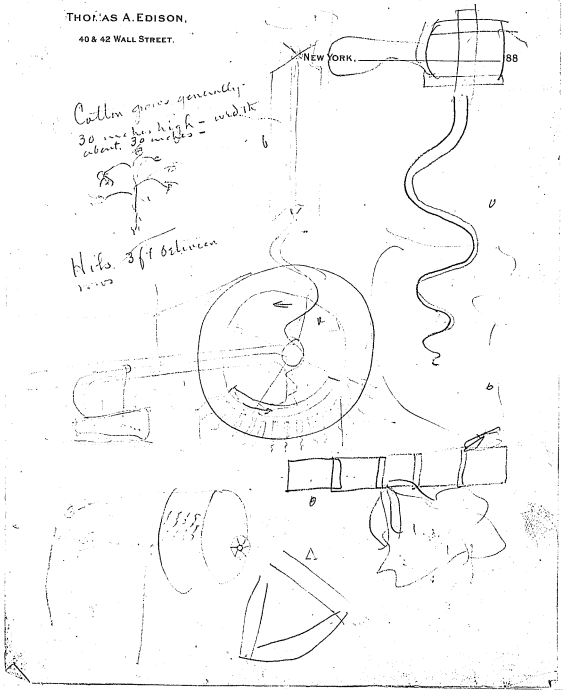
CABLE ADDRESS "EDISON, NEW YORK"

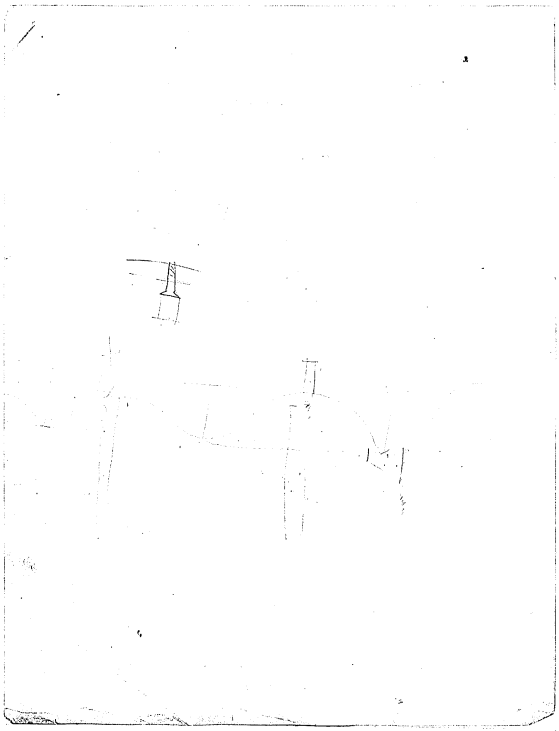
THOMAS A. EDISON,

40 & 42 WALL STREET.

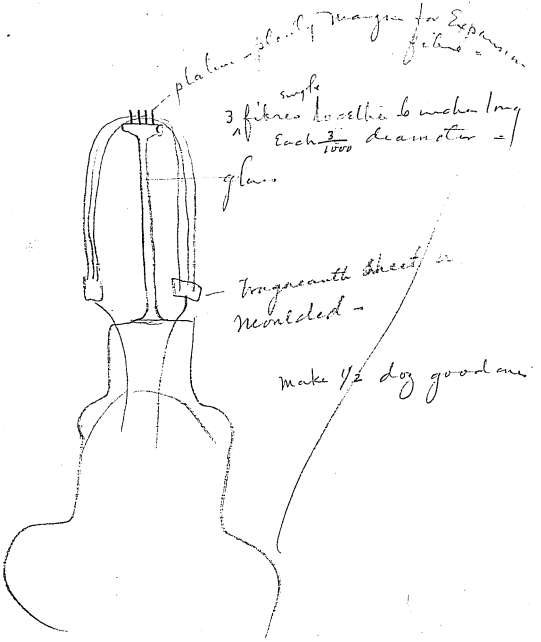
NEW YORK,

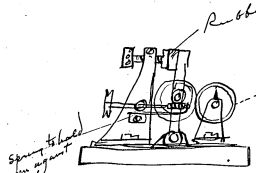
88





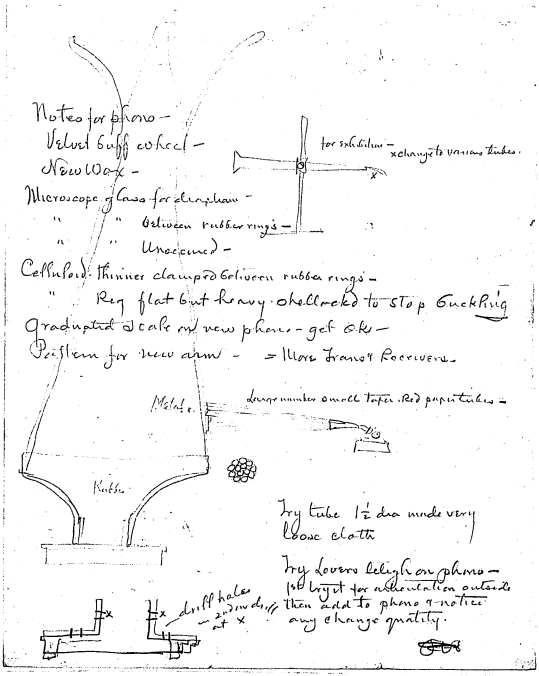
(1887)

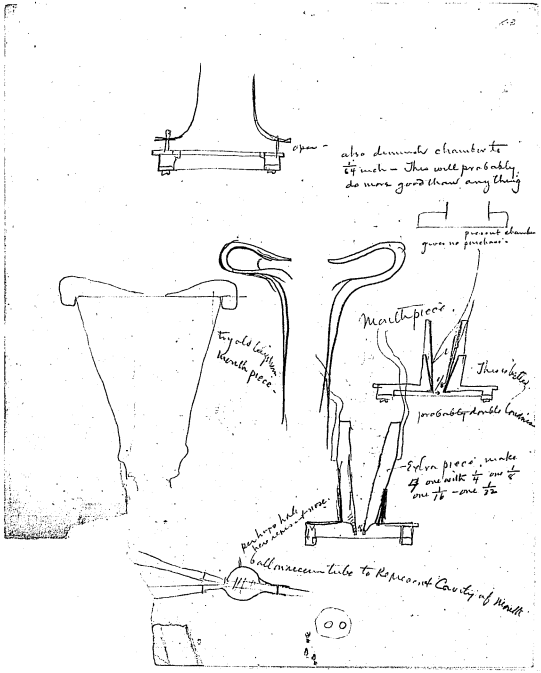

platinum - sharply triangular for Expansion
3 fibres [illegible] to make long single
Each 3/1000 diameter =
glass
Iron sheath sheet
moulded -
make 1/2 dozen good ones

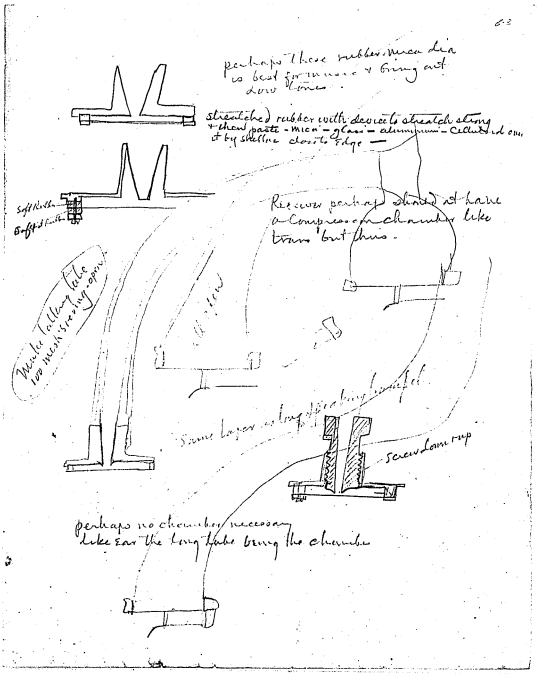


Cylinder measuring
electrically so
can be sent out
on telephone
or telegraph

Record
by electrical

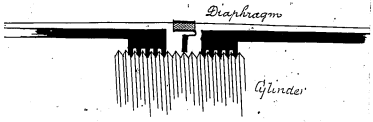

Notes for phono –
Velvet buff covered –
New Work –
Microscope glass for diaphragm –
" " between rubber rings –
" " Unscreened –
Celluloid thinner clamped between rubber rings –
" Reg flat but heavy shellacked to stop Quackling
Graduated scale on new phono – get one –
Problem for new arm – = More transom Reception –
for exhibition – x changeable various tubes.
Metal
Large number small taper Red paper tubes –
Rubber
Try tube 1½ dia made very loose cloth
Try Lovers Delight on phono – 100 bright for illumination outside then add to phono & notice any change quality.
drill holes 2nd drill at x


open -
also diminish chamber to
1/8 inch - This will probably
do more good than any thing
present chamber
given no purchase -
Mouth piece -
Tin tube Lining
Mouth piece -
Thin rubber
Indiarubber Bands
Extra piece, make
of one inch 1/4 one 1/8
one 1/16 - one 1/32
Rubber tube Glass mouth piece
Ball nozzle - tube to Reservoir
Cavity of Mouth


perhaps these rubber/mica dia
to beat for mixture + fixing and
loose screws.
stretched) rubber with device to stretch along
+ thread paste - mica - glass - aluminium - Celluloid etc.
+ by shelling closely Edge —
Stiff Rubber
Buffer Rubber
Recover perhaps stirred at base
a Compression chamber like
trans but thus.
Mercury falling into
100 mesh spray again
Some layer as top
screw down cap
perhaps no chamber necessary
like ear the long tube being the chamber

Relating to Improvements in Phonographs
Thos. A. Edison

(1887)



Motor struggle read up to speed - Breaking of Diaphragms

Reproducer or recorder standing out Ratchaugh (Phonograph scale ring

Knocking Sounds

Humming Sounds

Varying depth of chip

(Oscillator or Trembling + Recorder

Breaking Loose of Recorder or Reproducer device from diaphragm

Wax in bath

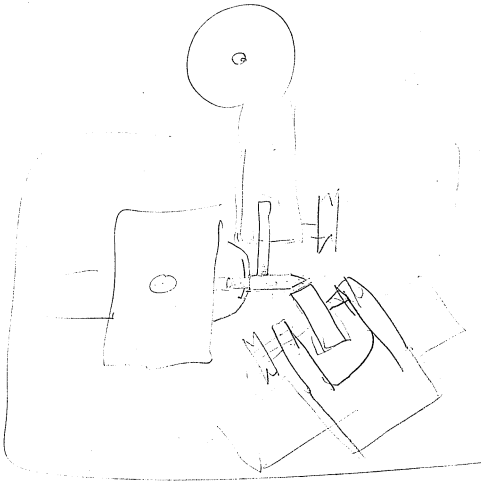
Another Cause being diaphragm bowed up by setting Spur collar by [illegible] + Chuck [illegible]

Thumb screw + Check Nut Spindle

(Nicholas Butterfield)

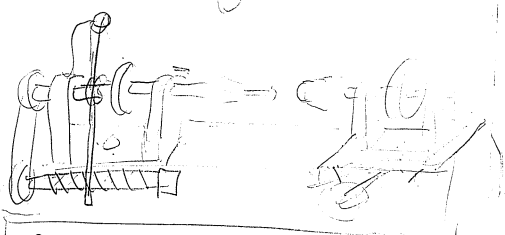
(1887)

#1 Centre Hoop guider



#3-

(1887)



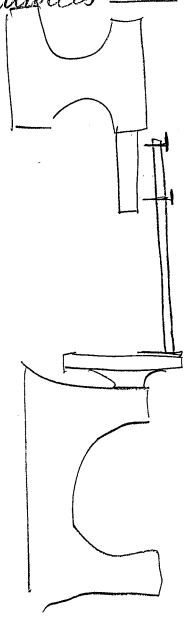
Slide rest + grinder as used on precision + fit to head + bed (ray Stewart lathe piece) + fit to it

All precision lathes must be perfectly true & will be tested by Trammels —

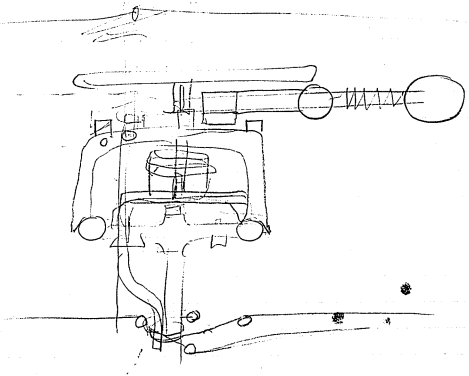
(1887)

Centers must be ground & accurately 60°

White Black in this —

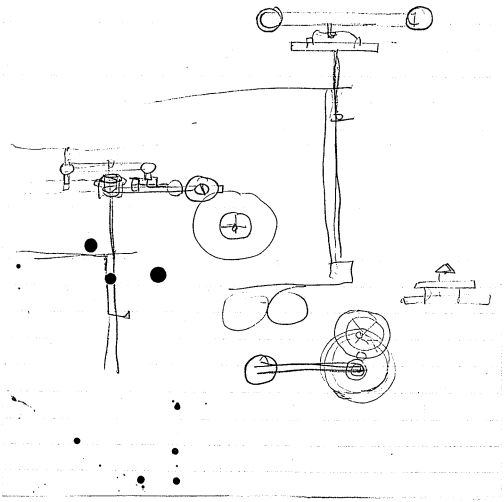


(1877)
Photo by Thomas Edison



32
44
128
128
140 8

1405 | 33000 (23
2416
484 0



(1857)

John

Go to Nyork race about having Sapphire dies made + Record of Machine necessary to keep them accurate (together He makes a split die) & then is what we must have I want to. Cut 6. thousandths $\frac{6}{1000}$ - I can rough them down to $\frac{9}{1000}$ hence you want $\frac{7\frac{1}{2}}{1000}$ - $\frac{10}{1000}$

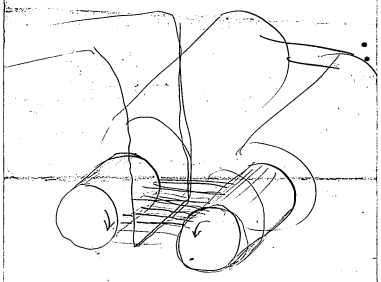
$\frac{7\frac{1}{2}}{1000}$ $\frac{7\frac{1}{2}}{1000}$ $\frac{6\frac{1}{2}}{1000}$ $\frac{10\frac{1}{2}}{1000}$ $\frac{10}{1000}$

$\frac{9\frac{1}{2}}{1000}$ $\frac{9}{1000}$ $\frac{8\frac{1}{2}}{1000}$ $\frac{8}{1000}$

E

The Edison Lamp Co.,

Harrison, N. J., ... 188



By Charles Batchelor

Cable Address "Edison, New York"

From the Laboratory of

Thomas A. Edison.

Orange, N.J. 188

Subject, Alterations

1 Magnet heads chamfered off

2 Armature wound to run slower (how much? ~~150~~ 200)

3 Shaft cut shorter

4 Pulley for governor larger (how much? run 500)

5 Shunt spool around points less resistance

6 Platinum points to be replaced by silver points larger

7 Arrange connections so that reverse switch can be used

8 Binder pulleys larger diameter & run in centres

9 Lug for binder pulleys to be cast on

10 ~~Arm~~ Bracket for back centre to be cast on & centres to be put in same as arm centre

"Cable Address "Edison, New York"

From the Laboratory
of
Thomas A. Edison.

Orange, N.J. 188

Subject.

11 Front centre to be on a swinging arm with lock. Centre to be made of Stubb wire & adjustable

12 Base plate to be carried out further ~~to meet~~ for the instrument to rest on

13 Lugs on base to act as guides so that the instrument cannot get out of line

14 Lug on instrument base & provide by screw for adjustment & tighten belt

15 Cross piece cast on for strength on end of arms carrying centre

Cable Address "Edison, New York"

From the Laboratory
of
Thomas A. Edison.

Subject, _____ Orange, N.J., _____ 188

16 Back rod to be 3/4"
17 flat belt for reverse screw
18 Return screw pulley to ~~be~~have no hub
pressed on — brass.
19. Pulley bearing comes out
20 Back rod bearing set back 2 that
the nut will come up to the place where
bearing was
21 Screw longer just what the bearing gives
22 Shaft grooved where middle bearing
is & pin in bearing to prevent shaft
being pulled out when taking off
the worm

Cable Address "Edison, New York"

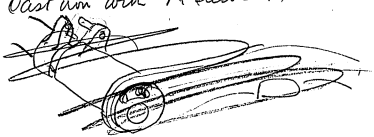
From the Laboratory
of
Thomas A. Edison.

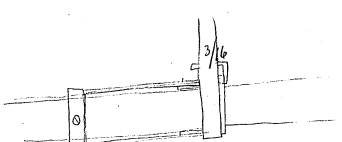
Subject. Orange, N.J. 188

23. Spectacle rim $\frac{1}{4}$" each way

24 Put on English Binding post

25 Travelling nut arm ~~3/16" thick~~
~~with 1" Collar & Sleeve~~
cast arm with $1\frac{1}{2}$ sleeve & ribbed with





(1)

Drilling Machine for Base complete including drilling Tapping & milling.

Drilling machine for Clockwork frames including Tapping.

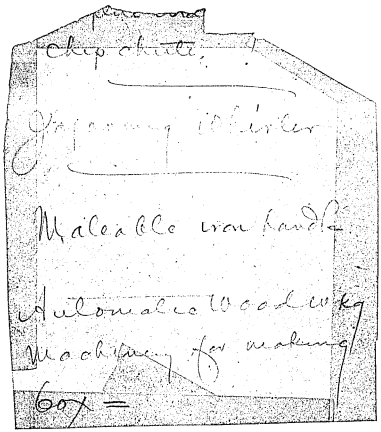
Drill for Recorder arm to drill, Tap + bore out piece for Recorder, must make arm complete in the machine.

(2)

Drill Clockwork frames on the Multiple Drill — now made.

Cast slots in bar for clamp for stop handle.

We will also make a jig to hold all the other parts and drill them all at once in Multiple Drill.

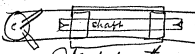

Malleable iron handles
Automatic Woodwork
Machinery for making
60 =

By Charles Cattell

Tools for Phonograph.

1 All centres must be accurately ground to 60° body ground

2 Female Centres – Machine to hold stock & a 2 box mounted head at each end – one to drill and the other to counterbore — Counterbores to be ground accurately & angle & all exactly alike



Sketch #2

3 Bush for motor shaft must be ground inside & outside and machine must be made like #3 for this

4 Travelling Arm must be ground out to fit sleeve in same manner as #3 but larger machine & allow arm to swing round

5 Spectacle arm to be fastened to the sleeve by a split & screw same as collar

6 Centres ~~of~~ for drum shaft to be 9/16 inches of 1/4

7 ~~Base drill jig~~
Bearings for centres of tripsper to be cast on the base.

8 Screw shaft pulley to be 1/4" larger in diameter

9 Large wheel on motor shaft that runs the Governor to be of brass & pinned on with a taper pin with head so that it can be pulled out

10 Base drill jig—
1st jig drills & reams 2 back shaft-hole
Clearance hole for 100 thread screw—
swinging arm hole — side hole for
lock nut — Set from the Casting.
2nd jig Set from reamed back shaft hole
& drill & ream 100 thread screw centre,
front screw, & from adjustment centre &
drills all other holes.

11 2nd Base drill jig must have attachments for drilling angle holes for binding pulleys

12 Drill jig for travelling guide lever

13 Drill jigs for spectacle arm
1st Drilling & reaming large hole
2d Set from large hole & drill all other holes in 4 Spindle press

14 Spectacle
1 Shearing punch & Die for cutting outside of spectacle to size

15 1 Drill jig for the two large holes

16 1 Drill jig for all other holes

17 1 Punch & die for the little piece on top of adjustment screw

18 Lock Arm
1 Drill jig to drill & ream the large hole

19 1 Counter bore for facing same

20 / Jig for drilling centres in Rock shaft.

21 / Punch and die for turning off Knife

22 / ~~Punch~~ ~~Stamp~~ ~~Tool~~ die for graduated scale

~~1 Drill jig for Graduated~~

23 / Punch and die for holes in same

24 / Punch & die for jig back Knife

25 / Punch & die for wax guard

26 / Forming tool for same

27 / Drill jig for base – All holes to be done in same –

28. Top bearing for vertical shaft to be ½" longer

29 / Drill jig for Governor frame

30 / Punch and die for Governor spring

31 / Drill jig for governor adjustment angle piece

32 / Drill jig for governor adjusting lever
33 / Drop x die for forming regulating magnet frame
34 / Drill jig for same
35 / Drill jig for annealing for same
36 / Punch and die for reg. magnet spring
37 / Punch + die for rubber stops for spring in regulating magnet
38 / Drill jig for wooden base
39 / Punch and die for brushes
40 / Punch and die for brush angles
41 / Drill jig for brush holding arm
42 / Punch + die for commutator bars
43 / Drill jig for the magnet

44 1 Punch & die for spring washer on swinging arm

45 1 Ditto on throttle stud

46 1 Punch and die for oil hole cover

47 2 Punch & dies for cylinder heads 1 for each end

48 1 Set of drawing dies for making taper on cylinder

(1887)

THOMAS A. EDISON, PRESIDENT. CHAS. BATCHELOR, TREASURER AND GEN'L MANAGER.

EDISON MACHINE WORKS,

CABLE ADDRESS: "XYDSUN NEW YORK." Nos. 92 TO 108 GOERCK STREET.

New York, _____

Edison,

I think it would improve the articulation to have the cam or adjustable stops on both sides of the spring 201 — As we are now very close to perfect articulation

Batchelor

Edmunson is in Washington but I shall see Russell & Eugene & see if I cannot get off in some way

C B

Cable Address "Edison, New York."

From the Laboratory
of
Thomas A. Edison.

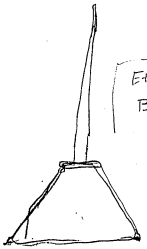
Orange, N.J. 188

Oxides

Edison

Edison Phonograph Co
OIL FOR PHONOGRAPH

Edison Phonograph Co
Battery Fluid Salts.



Edison Phonograph Co
Battery Powder.

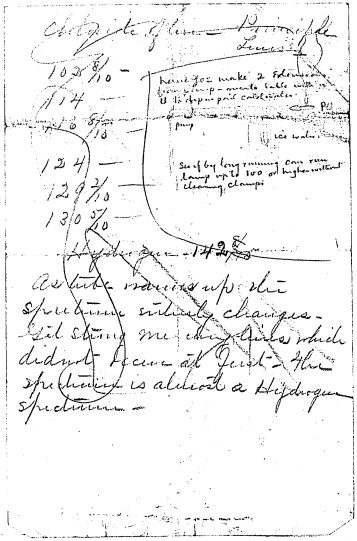
Notes

put flat plat on side of shank of filament + soak in syrupy Chloride plat + also ammonia Chl of plat see if look together! also immerse the joints in Solution syrupy of the Chl + pass current or arc – also Hg amalgum Pt + also Cu –

Put Bamboo filament in sealed tube along with phos anhy and Chloride Carbon also some copper dust to absorb Cl in tube heat it up to red heat protect eyes – do it slowly – keep dry thoroughly in tube – try filament with PO_5 alone, each part also with nothing – also ascertain what temp great change takes place in Carbon use sand bath + thermometer with sealed tube keep the cold end having Phos-anhydride – try Sodium to absorb H_2O

put PO_5 – Chl Carbon Copper dust + filament get vac then Carbonyge – also fols with Chl C only –

Paint a platted joint with syrupy Chl Plat often it has been heated by flame + almond Coal + heat strongly in vac by bringing up current – slowly



Air tube showing up the spectrum with changes - Oil showing more absorption which didn't occur at first - The spectrum is almost a Hydrogen spectrum -

by this means we can mould lots of things that we cannot now mould. I have a plaster or powder or top to mix the Chalk with fine camel hair brush

all the chalk we moulded last night split after being turned sometimes they do not split for ½ hour afterwards.

Suppose you moulded some only ½ the length perhaps that they would not split - they could be moved if only ¼ inch long = We must stop the splitting. - The ½ + ½ do not split very often - but I want some 3/4 Columns of ¼ Chalk - twice as much water on ½ + ½ seems to be exactly right about 80 miles of CaBO.

(1877)

Cable Address "Edison, New York."

From the Laboratory
of
Thomas A. Edison.

Orange N.J. _____ 188

Mr. Edison: Re the attached - Holzer informs me that:—

Bradley has pressed 718 new straight fibre forms—
He has delivered 610 of these
500 of these have been carbonized by Lawson and 175 found useful
Lawson has not yet run thro any filaments straight - He has them in the forms now. They have not been put thro before because of the difficulty in finishing forms.
The above answers query re straight Filament Lamps.

Have ordered forms from Brasselly - Bricklayer will be out today in reference to furnace —

CABLE ADDRESS "EDISON, NEW YORK."

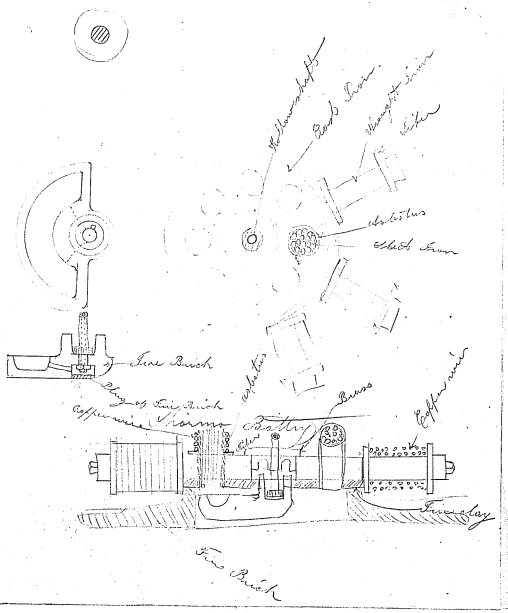
(1887)

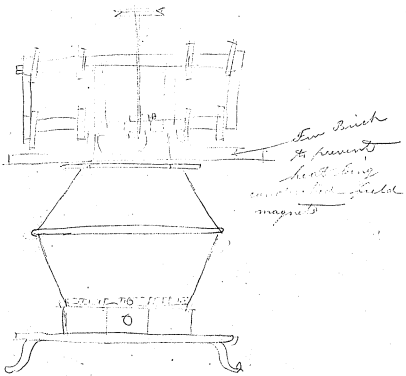
Bipromagnetic Generator

THOMAS A. EDISON,

40 & 42 WALL STREET.

NEW YORK, _____ 188





CABLE ADDRESS "EDISON, NEW YORK." (1887)

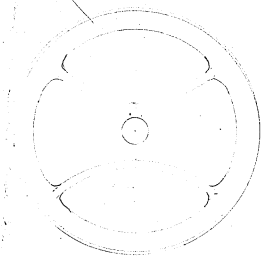
Electromagnetic Generator ?

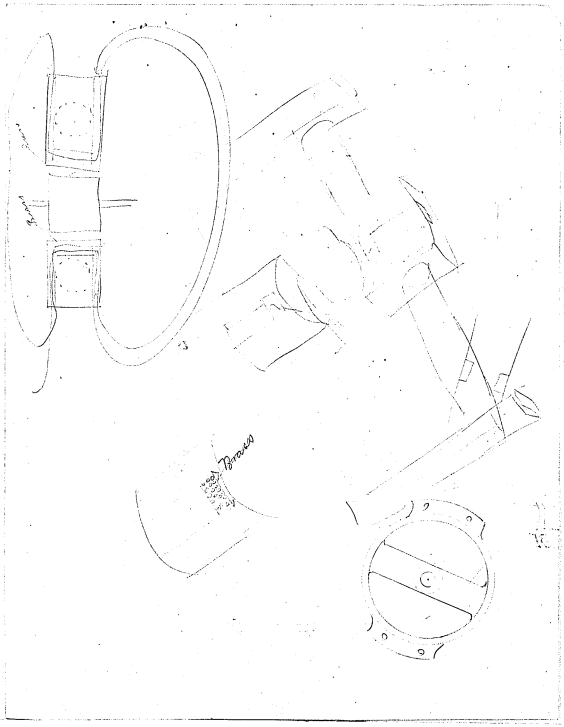
THOMAS A. EDISON,

40 & 42 WALL STREET.

NEW YORK, _____ 188

Armature Core





CABLE ADDRESS "EDISON, NEW YORK"

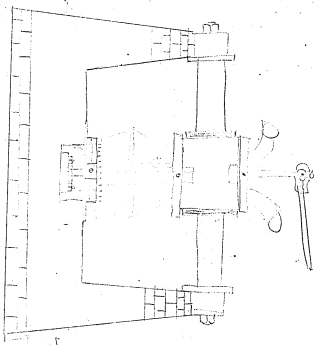
(1887)

Pyromagnetic Generator?

THOMAS A. EDISON,

40 & 42 WALL STREET.

NEW YORK, _____ 188



(1887?)
Ore Conc?

Assume acid

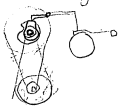
percolation several days between
120 fahr. Keep solution acid by test
1 of 1 pot solution — attempt work
with water by percolation instead of plan
also the agitation method changes
results percolation
—
also grinding to such fineness
that in washing remaining ore
will not absorb ½ of gold
in solution.
now consider the percolation
method instead of agitation
— although in reality a combination would
then need to be

(1887?)
Ore Conc.

Heating Calcar to provide in closed revolving
Cylinders to heat ore in
steel sized, by screens in cast sizes —
puffy washed & dried.

Tumbling bbl - balls, sweet weight
Calcar goes to
powder screen screen out mixed by
test Cu to low — then roast — Melter

Heat in an sized of riffs until
FeS oxized - Calcar heated in graphite,

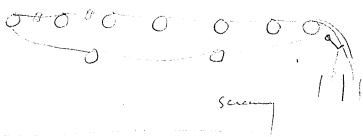


Cleaner

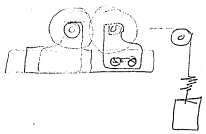
(1887)
Ore Milling?

Car & skip Scale dumpers by pulsometer

1) from grizzly by rolls & screening bulls. (ball grinders required — 60 mills)



Roller feed on Crushers -

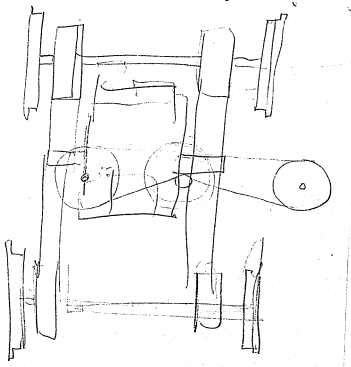


(P. Jan. 00)

Laboratory of Thomas A. Edison, Menlo Park

From the Laboratory of
Thomas A. Edison
Orange, N.J.

Subject



(1887)

Probably Electric Generator

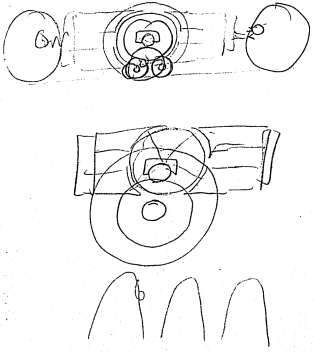
Cable Address "Edison New York"

From the Laboratory of Thomas A. Edison.

Subject Orange, N.J.

Marmalade

Mamalade



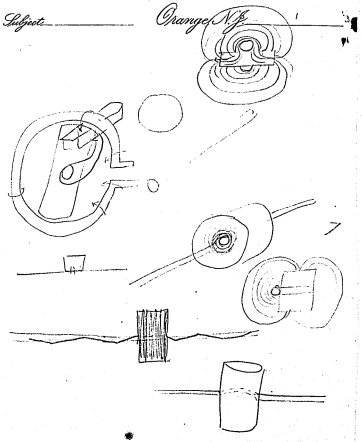
(1887+)

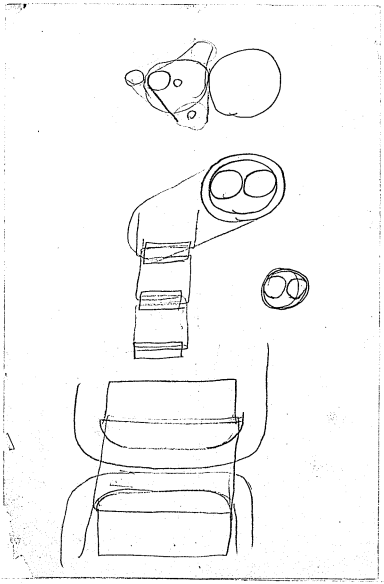
Probably Electric Generator

Cable Address "Edison New York"

From the Laboratory of Thomas A. Edison.

Subject Orange, N.J.



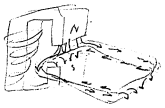


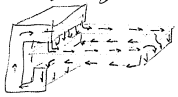
(1887)
Probably Electric Generators

Cable Address "Edison, New York"

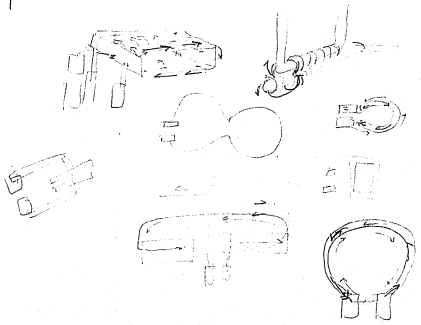
From the Laboratory
of
Thomas A. Edison.

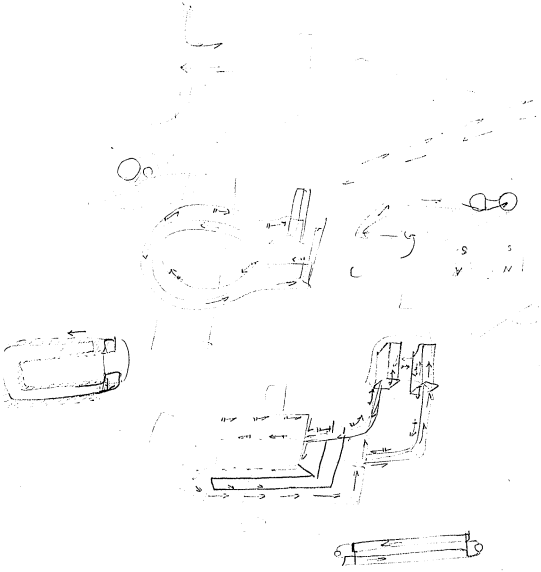
Subject (2) Orange, N.J.





W&P Gadsden If lines are fixed and cannot pass through paper then we cause get a directive flow thus





Gladstone

Insoluble in copper plate,
" Insoluble in Sulfuric acid.

Oxychloride Copper
$3Cu_2Cl_2O_2 \cdot H_2O$
Found in Commercial Ammoniacal Copper
Winds in heating tubes black
anhydrous

Phosphide of Copper Cu_2P_2

3 | 320 000 | 8888
120 | 106660
960
1066
960
1060

8. acres.

200
200
40000
120 | 320000 | 266
240
800
720
80 lbs to 3 feet
8 inches deep

32.

40
3
120

120 000

T.A.E

Cable Address "Edison, New York."

From the Laboratory
of
Thomas A. Edison.

Orange, N.J., _____ 188

Wt. of Armature 700 lbs —
Speed Rev'n 650 @ 700 —
Speed per hour 10.5 miles —
H.P. developed 10. horse
Volts Employed 625 —
Res. Cable 6½ ohms —
Drop in Cable, 3.80
Displacement, 27 [illegible]
4/200 c.

Rev Speed, from 700 to 1000
Speed per hour 18 @ 20. ± possible
probable displacement 4/200 —
Cable " 3 ohms, Earth allowed 1 ohm
Total 4 ohms
E.M.F. 680 —
Weight armature can run
up to — 850 lbs
Greatest hp possible —

JB

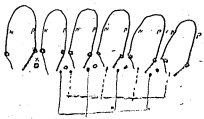
Notes

150
80
13 4-

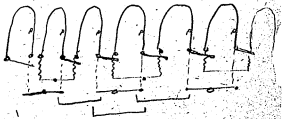
Original Cost (Bldgs materials interest 65 acres)
Light Equipment & Stock mill & miller —
Education & Appeal Expenses - Hist (Salary)
Assets 552 655
Enhanced Value

84362 for Appeals taken
7622a 86 —

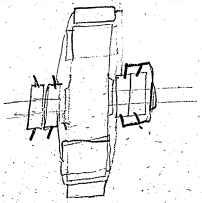
Corresp'g year - last yr:



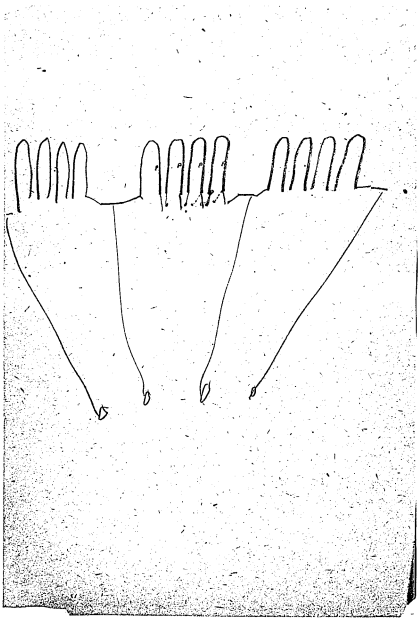
X-section

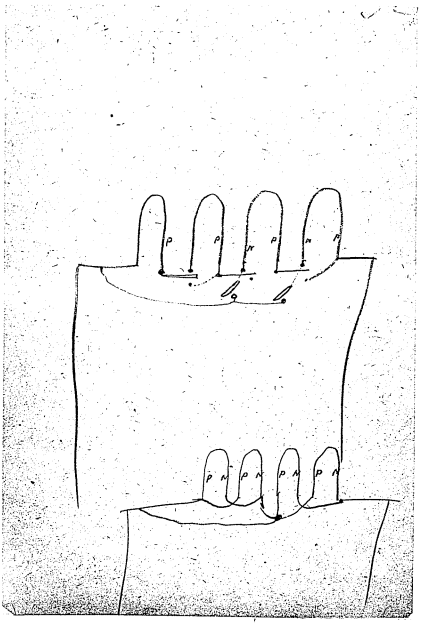


300 –
1 150 6
150 100 –
100 200
200 300
300 600

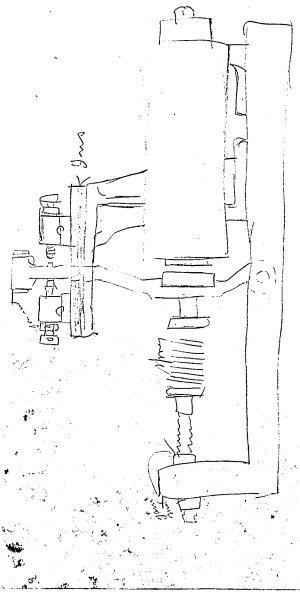


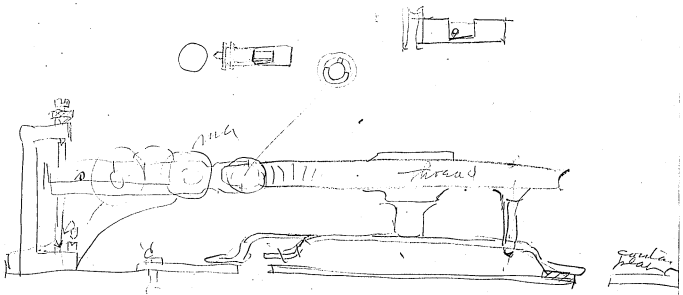
b) 300
50

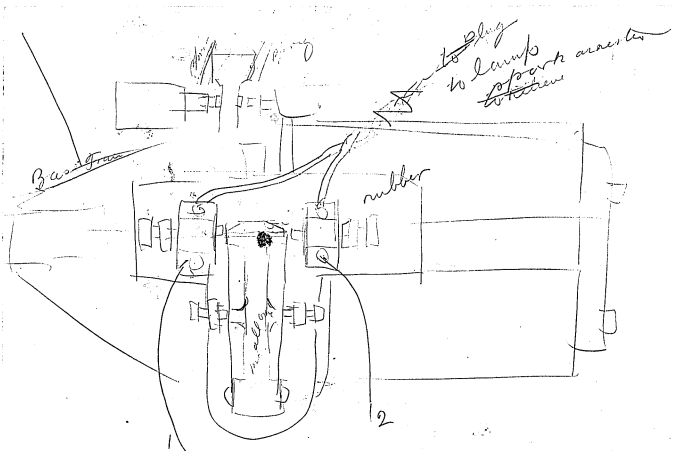




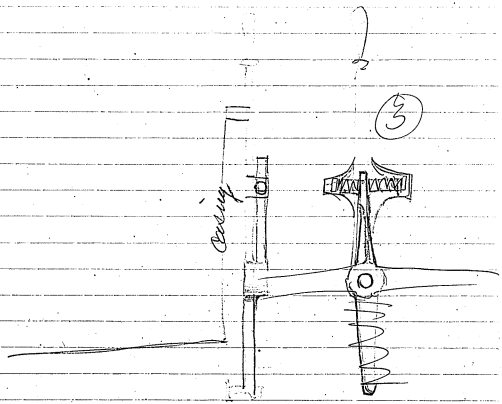
(1887)
Telegraph Relay ?






to plug
to lamp
to switch
rubber
1
2

Gifford never reduced the invention to practice, nor never made any attempt to do so. Herrington may have been later & connected,



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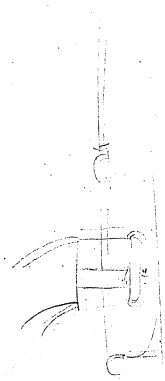
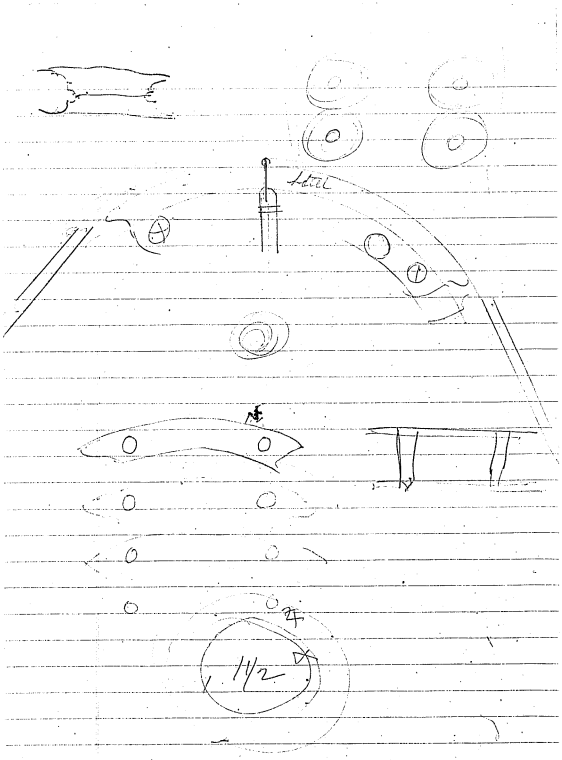
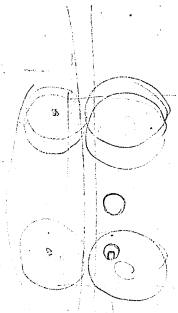
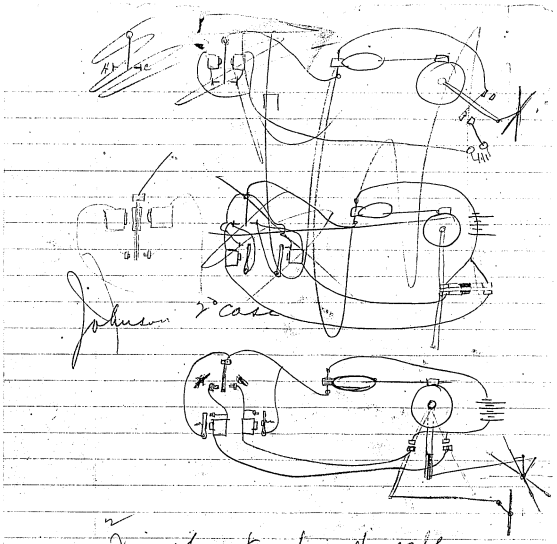
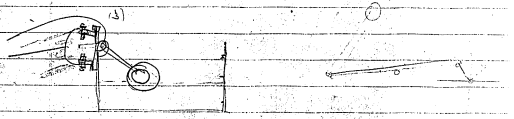



1 1/2

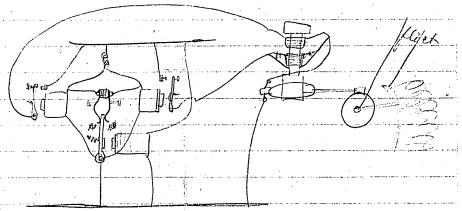


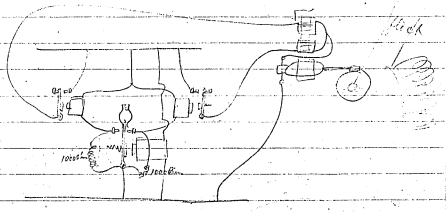


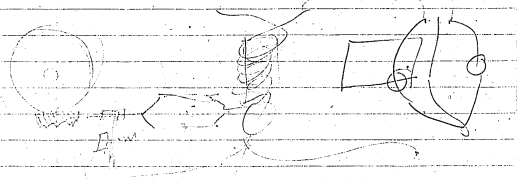
View of mating actuating disc on thermostat.

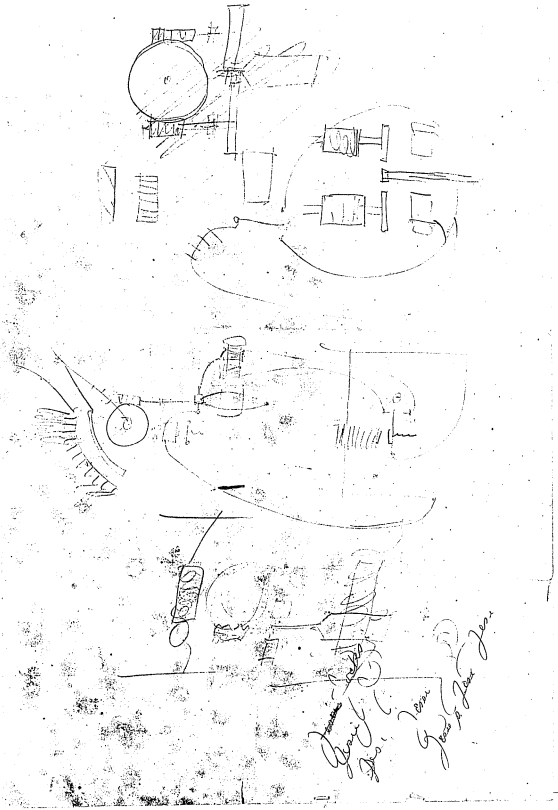
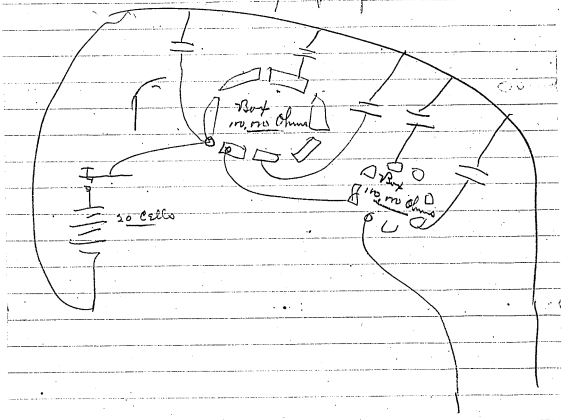


Johnson 3rd Circle









Cable Telegraphy.